1 Introduction

1.1 Project Scope

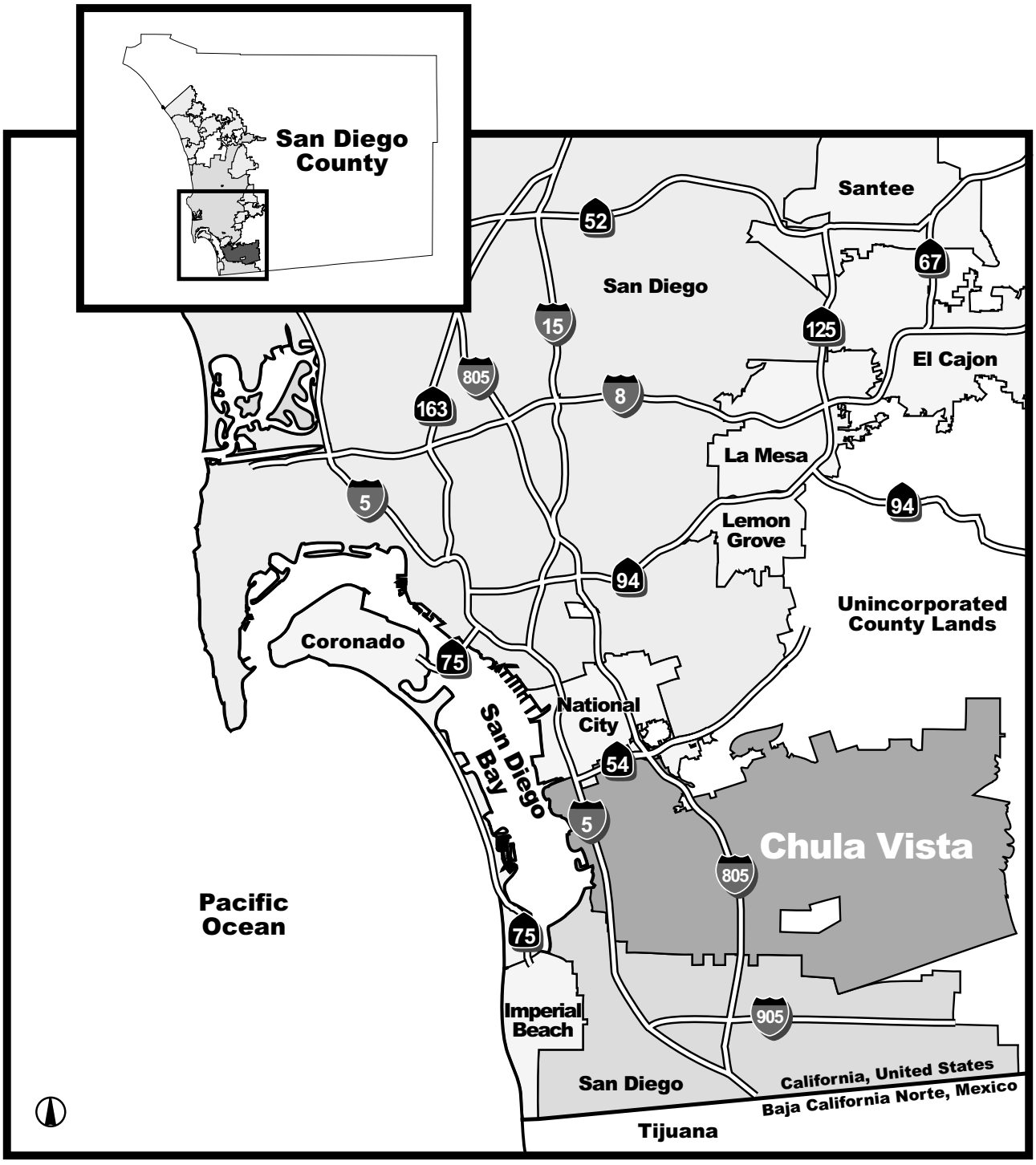
The City of Chula Vista *General Plan* Circulation Element identifies the Bicycle Plan and references the source for City policies regarding bicycle usage as the "Original Bike Route Element of the General Plan" adopted in 1975. This element was adopted "to provide for the safe convenient use of bicycles throughout the community for both recreational use, and as a good alternative to the automobile as a form of local transportation." This element defined the basis for all later bikeway development efforts.

In 1996, in its continuing systematic approach to implement a bicycle program for its citizens, the City developed a Bikeway Master Plan. One of the objectives of this plan was to establish the type of facility that should be implemented within the City. It also identifies the need to integrate with the existing system of regional bikeways in the San Diego metropolitan area.

Project Location

City of Chula Vista Bikeway Master Plan Update - 2005

Figure 1-1



"The rapid expansion of not only the City, but also its surrounding areas necessitated an update of the *Bikeway Master Plan* to better serve the needs in the future. The Bikeway Master Plan is intended to determine not only the local travel needs, but to serve regional long-distance travel needs as well."

This study is an update of the City of Chula Vista's 1996 *Bikeway Master Plan*. According to the project request for proposal (RFP), the project scope is to provide a "new Bikeway Master Plan that will identify existing facilities and bicycle deficiencies throughout the City, along with cost estimates to make improvements. The objective of the new Bikeway Master Plan is to review and make recommendations as to how the current bikeway network within the City planning area can be updated to best suit the needs of the City now and in the future."

The project scope therefore included documenting and evaluating Chula Vista's existing bikeway facility system and its relationship with other systems such as mass transit, and recommending improvements wherever appropriate.

This resulting document should be responsive to expected General Plan changes that will affect circulation patterns. By law, cities must adopt their bikeway master plans (termed "Bicycle Transportation Plans" by Caltrans) no earlier than four years prior to July 1 of the fiscal year in which the state's Bicycle Transportation Account (BTA) funds are to be granted. (For example: The 2005/2006 fiscal year begins on July 1, 2005. Cities applying for 2005/2006 BTA funds must have a bikeway master plan adopted July 1, 2001 or later.) This four year cycle should help to make certain that General Plan changes affecting bicycle transportation will be accommodated in a timely manner.

1.2 Project Study Area

The project study area was the City of Chula Vista and its planning sphere of influence of the surrounding communities and unincorporated County areas. Adjoining area's bicycle systems were evaluated for opportunities as connections with Chula Vista's and to extend the regional network via Chula Vista's bikeway system. (See Figure 1-1: Project Location.)

1.3 Methodology

The project methodology included a review of applicable documents, field work, a mail-in survey questionnaire and geographic information systems (GIS) analysis of the field work data. Chula Vista's existing bikeway system was analyzed for a number of factors using both traditional field survey and GIS techniques.

1.3.1 Literature Review

Applicable sections of documents related to Chula Vista's bikeway system are excerpted in Chapter 2. These include the current City of Chula Vista's *General Plan* and 1996 *Bikeway Master Plan*, as well as neighboring community, regional and state plans and guidelines.

1.3.2 Field Work

During the initial field work, consultant staff members drove many mapped routes to verify accuracy with respect to the regional GIS bikeway mapping data received from SANDAG. Consultant staff also rode many of these routes, especially those that did not appear to be consistent with the data. These discrepancies were often discontinuous routes or route extensions that had not been digitized. The SANDAG data base was fairly accurate, making developing an initial bikeway system data layer for the City relatively straightforward.

1.3.3 Current Bike Use

During field work, consultant staff have seen limited bicycle use in the City of Chula Vista. Commuting cyclists are often seen on the major thoroughfares and the adjoining sidewalks. Some recreational cyclists are seen at the bayfront and an occasional mountain biker is seen riding down into the canyons in the eastern portion of the City. It is possible that more use is evident during the early mornings and late afternoons when commuters and school children would be more likely to be using their bikes for transportation, as indicated by questionnaire results. There is also likely to be a greater weekend distribution of recreational cyclists across the City, but particularly in eastern Chula Vista where the roadways are wider and Class 2 bikeway facilities are more prevalent.

1.3.4 Survey Questionnaire

The questionnaire was developed to reveal as much as possible about current user numbers, user types, preferred facility types and times of use. The questionnaire was distributed to San Diego County Bike Coalition members via their regular monthly mailing. Copies were also placed at several area bicycle shops and City facilities such as libraries and community centers. (See Section 7.6: Questionnaire Response and Analysis.)

1.3.5 Geographic Information Systems

An industry textbook describes geographic information systems (GIS) as “An organized collection of computer hardware, software, geographic data and personnel designed to efficiently capture, store, update, manipulate, analyze and display all forms of geographically referenced information.” While this definition is technically accurate, it may be rather perplexing for the layperson. Basically, a GIS is a computerized map with various types of associated information attached to specific places on the map. Using a computer system configured for the purpose, a user can query the GIS about the place in question and selectively call up its associated information. A GIS is much more than just a computer system for making maps. It is an analytical tool that allows the user to identify spatial relationships between map features.

A GIS does not store a map in the conventional sense, nor does it store a particular image or view of a geographic area. Instead, a GIS stores the data from which a user can draw a desired view to suit a particular purpose. (The majority of the maps in this report were generated from a single data base compiled specifically for this project.) With a computer system capable of holding and using data describing specific features on a map, a user can overlay a number of related data layers to represent the many interrelated characteristics of the feature in question. The real value of GIS is its ability to overlay information from multiple sources over a map feature, often revealing relationships that would not otherwise have been noticeable. Land use data were acquired from SANDAG and roads from the City of Chula Vista.

Since both the City and the consultant routinely utilize GIS, the project scope called for the consultant to provide the City with a bikeway GIS coverage layer for incorporation into the City’s overall GIS data base. This allows the City to take advantage of its GIS capabilities to keep accurate records of existing bikeway conditions, to perform analyses and to develop future projects.

Consultant staff re-coded the SANDAG bikeway data to the City’s road centerline data to ensure the SANDAG bikeway data were joined to the most accurate roadway information so the City will have a viable bike facility coverage layer incorporated into its GIS system. In addition, in response to questionnaire respondents, if the City wishes, this information can be used to produce a bikeway map for general distribution.

1.4 Project Approach and Goals

The overall approach for this master plan is summarized in the following paragraphs. The approaches listed below also constitute the planning goals for this study.

• The bicycle master plan should be integrated into all transportation plans, especially if the proposed bicycle facilities will use general purpose roads shared with other forms of transportation. The planning efforts should include the integration of various modes of transportation including transfers between modes at transit centers and park and ride facilities.

• The aim of planning for bicycles should not be focused on any particular facility type so much as it should be focused on the safe and efficient travel of cyclists. This will generally require both the use of the existing transportation infrastructure and the construction of special facilities for cyclists.

• The maintenance of bicycle facilities and the monitoring and assessment of their performance are critical for ensuring safe and efficient travel for cyclists. Planning for cyclists is an ongoing process.

• The coexistence of cyclists and drivers on roads requires that both are sensitive to and recognize a common set of rules. Training, education and enforcement are as important as physical planning and design.

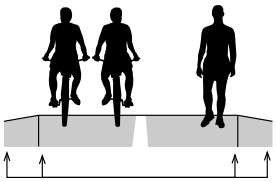
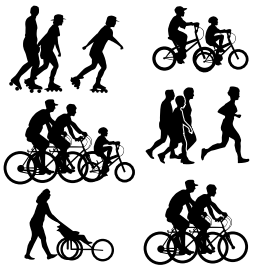
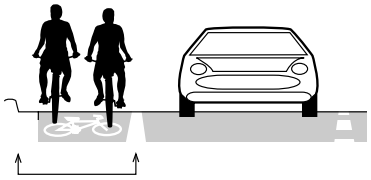
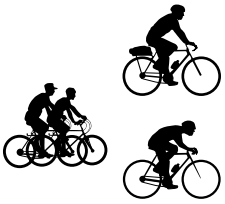
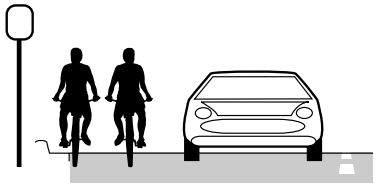
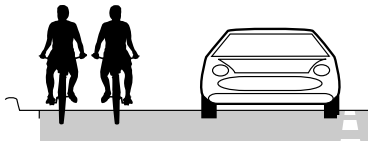
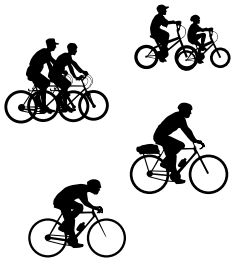
• It is imperative that a “bicycle perspective” guides any planning for cyclists. The bicycle has its own characteristics, constraints and opportunities that the planner must consider. This must be combined with the recognition that cyclists do not form a homogeneous group in terms of age, ability, experience or traffic judgment.

• An integration of land use planning and transportation planning is needed in order to support future projects that are not intensively dependent on the automobile. This study needs to take into account future land use and population projections and provide bicycle facilities to help decrease auto dependence.

Facility Types

City of Chula Vista Bikeway Master Plan Update - 2005

Figure 1-2

	Typical Sections	Locational Criteria	Typical Users
Class 1 (Bike Path or Bike Trail)	 8' paved + 2' graded edge min. for two-way (Greater width recommended where high bike volumes or high levels of mixed use occur)	Separate right-of-way away from motor vehicular traffic. Used where adjacent roadway speeds and ADTs are too high for safe joint use, for connections through open space areas and parks, or where no other facility type is feasible.	 Kids, Family Recreational, Adult Exercise, Skaters, Joggers, Recreational Walkers, Exercise Walkers
Class 2 (Bike Lane or Bikeway)	 5' min. total width where curb occurs, 6' adjacent to parking (Wider bike lane recommended where bike volumes are high)	Within vehicular right-of-way, but delineated by warning symbols and striping. May be used where roadway speeds and ADTs are fairly high, but adequate roadway width is available. Directness and number of users are significant factors.	 Adult Recreational, Commuters and Serious Cyclists
Class 3 (Bike Route)	 (Wider than standard outside lane recommended)	Within vehicular right-of-way, but typically delineated by directional signage only. Used where roadway speeds and ADTs are fairly low, and where route directness and number of users is not likely to be significant. Primarily for route directions on suggested roadways.	 Commuters and Serious Cyclists
Undesignated	 (No modifications required)	Within vehicular right-of-way, but not signed or delineated except in bikeway maps. Used where roadway speeds and ADTs are quite low, and where route directness and number of users is not likely to be significant. Used to informally connect other facilities.	 Kids, Family Recreational, Commuters and Serious Cyclists

1.5 Project Definitions

To prevent the confusion that can occur when referring to bikeways, bicycle lanes, bicycle routes, bicycle trails or bicycle paths, the Caltrans standard for referring to bikeway facility types is used throughout this document. (See Figure 1-2: Bikeway Facility Types and the following photos.):

1.5.1 Bikeway Facility Types

Class 1 – Paved "Bike Path" within an exclusive right-of-way, physically separated from vehicular roadways and intended specifically for non-motorized use

Class 2 – Signed and striped "Bike Lane" within a street right-of-way

Class 3 – "Bike Route" within a street right-of-way identified by signage only

Undesignated - An additional category defined as locally recommended on-street routes that appear on area bikeway maps only

Example of Class 1 Bike Path (Sweetwater Bikeway, National City)

Example of Class 2 Bike Lane (East H Street)

Example of Class 3 Bike Route (East Naples Street)

1.5.2 Associated Agencies

California Department of Transportation (Caltrans)

Caltrans is the state's manager of inter-regional transportation services. Caltrans is responsible for the design, construction, maintenance, and operation of the California State Highway System, as well as that portion of the Interstate Highway System within the state's boundaries, including promoting the use of alternative modes of transportation.

Metropolitan Transit System (MTS)

MTS consists of 89 bus routes and two trolley lines within the San Diego region.

San Diego Association of Governments (SANDAG)

SANDAG is an association of the 18 cities and county government in the San Diego region. SANDAG directors are mayors, council members, and a county supervisor representing each of the area's 19 local governments. This public agency serves as the region's primary planning and research organization developing strategic plans, obtaining and allocating resources, and providing information on a broad range of topics pertinent to the San Diego region's quality of life.

SANDAG administers the $3.3 billion TransNet program, the region's ½-cent sales tax dedicated to regional transportation projects. All San Diego County's 18 cities and county communities benefit from the TransNet program which has helped fund a variety of highway, transit, local streets and roads, and bicycle projects throughout the region. One million dollars a year are set aside for bicycle projects.

The Metropolitan Transit Development Board (MTDB) recently became part of SANDAG. MTDB is the MTS board of directors made up of members appointed from the city councils of member cities and the County of San Diego. MTDB has planned, designed and constructed two trolley lines in four corridors with other corridor projects in various stages of planning, engineering and construction. MTDB annually prepares and updates the Transportation Improvement Program (TIP) for the region. The plan covers all transit services and facilities in the MTDB area, providing policy, planning and programming guidance.

MTDB provides regional Metropolitan Transit System (MTS) bus and rail services directly or by contract with public and private operators. MTDB determines the routes, fares, frequency of service and hours of operation for regional services. Through various provisions of state law, MTDB has the policy responsibility for coordinating MTS fares, transfers and services cooperatively with the operators.